



TITAN ENGINEERING SUPPLIES



Titanengineerings





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Titan Engineering Supplies offers outright and exchange units, parts and





ABOUT US

Titan Engineering Supplies has been active in the oil and natural gas drilling industry for over 25 years. During this time, TES has grown from a small repair shop to a full-service drilling rig equipment manufacturer. TES manufactures and rebuilds multiple lines of equipment not limited to:

- Substructures
- Mast
- Rig Walking Systems
- Iron Roughnecks
- Drawworks
- Torque Converters
- Air and Gas Compressors
- Air Hoists
- Winches
- Kelly Spinners
- Pipe Spinners
- Wireline Machines

Titan Engineering Supplies ("TES") was founded in 1991 by Johnny Kidd, Kenny Black, and Tom Luttrell. HQ in Odessa, TX has functioned as a full-scale manufacturing API facility since 2015.

The majority of Company sales come from replacement components — replacing, refurbishing, and/or upgrading worn, ineffective, or outdated equipment on existing rigs. TES also sells component and full rig packages, primarily to drilling contractors looking to grow their fleet. TES sells and services individual components and can sell, service, and assemble an entire drilling rig on site.

TES operates from an approximately 30-acre campus that includes 20 buildings with ~126,000 square feet of gross building area.



COMPLETE DRILLING RIG PACKAGES

TES knows how costly rig downtime can be to an operation. Our 25 plus year history of serving the oil and gas industry has revolved around providing products and services to maximize drilling efficiency and well production, while minimizing downtime.

We manufacture a complete line of reliable rig components from our Odessa, TX facility, which can be customized to meet the specific needs of our customers. In addition, our repair and exchange program ensures that customers receive the necessary products quickly.



AC & DC DRILLING RIG PACKAGES

The TES IRONMAN Rig Package is a complete package consisting of an TES AC Drawworks, with Independent Rotary Drive, Top Drive, Mud Pumps, Pit System, Substructure and Mast, Walking System, Caterpillar Power Systems and can include any combination of support equipment the customer desires. The AC and DC Rig Packages are built in accordance with IADC & API specifications. All new Rig Packages include a one year warranty with full mechanical & electrical rig up and on site commissioning.

As a design build facility, we can equip your rig to your precise requirements. To learn more about how we can customize an AC/DC rig to your exact specifications, please call us at 1-432-381-5265.



TES STEALTHWALKER RIG WALKING SYSTEM

Total lift capacity of 3,000,000 lbs
Stealth Pods have a 600,000 lbs. to 750,000lbs per corner rating each at 3000 PSI
Move the rig in 8 directions up to 60 feet per hour



SUBSTRUCTURES

Titan Engineering Supplies, is a leading innovator of substructures in the rig arena. Our company has been in the Oil & Gas drilling equipment business for over 25 years, supplying new and refurbished substructures to customers all over the world.

Our self-elevating or box on box substructures are designed to support all needed components and also provide additional storage in the lower sections of the substructure. They can be customized for specific rig packages with a high degree of adaptability for varying ground conditions and well types including the use of rig mats.



MAST

Beam or angle iron, 650K, 750K, 1M, 1.3M, 1.5M. Your custom rig, with the API 4F monogram, meets the Q1 standards your purchasing guidelines require.



FESTUNE PACKAGES

Capable of walking 150' plus



DRAWWORKS

Available with AC, DC or Mechanical Power



MUD PUMP PACKAGES

1000-2200 Triplex/Quintoplex AC, DC or Mechanical Power



MUD PIT SYSTEMS

Designed to virtually any customer specification



GENSETS

Custom designed and engineered in multiple sizes



STEALTHWALKER WALKING SYSTEMS



- ***Set of (4) Stealth Pods that can be pinned to the end of the substructures***
- ***Stealth Pods Integral to Pony Subs***
- ***Total lift capacity of 3,000,000 lbs.***
- ***Stealth Pods have a 750,000 lbs. rating each at 3000 PSI***
- ***Move the rig in 8 directions at up to 60 feet per hour***
- ***Move rig 24" per cycle***



- ***Hydraulic Power Unit with***
 - ***(2) 75 HP electric motors and starters***
 - ***3000 PSI continuous operating capability***
 - ***Self-contained skid with 200 gallon reservoir***
 - ***Electric pump for filtering tank filling***
- ***Wireless Remote Operator***
- ***Includes installation at TES facility***
- ***Manufactured in accordance with API Q1 QMS and designed to meet API 4F***

MAST



- *Analysis for hook load capacity*
- *Perform API CAT III and CAT IV inspections and repairs*
- *Modifications to increase load capacity*
- *Modifications to increase working height*
- *Modifications to leg spread to accommodate customer requirements*
- *Redesign crown clusters for load capacities including replacement of sheaves for larger wire rope to accommodate increased load capacities*
- *Modifications of finger board to allow increased drill pipe size and also increase racking capacity*
- *Modifications for installation of top drive tracks and additional accessories for top drive packages*
- *Upgrade standpipe assemblies as per customer requirements*
- *Sandblast and paint to customer specifications*
- *Field service and repair when applicable*

SUBSTRUCTURES



- *Analysis for load rating and set back capacities*
- *Perform API CAT III and CAT IV inspections and repairs*
- *Substructure modifications to increase rig floor height and rotary loads*
- *Modify set back area to increase load capacities and racking capacities*
- *Installation of drawworks / rotary table / iron roughneck socket and all additional flooring needs*
- *Design, build and installation of outriggers as per customer requirements*
- *Upgrades or modifications needed to mud lines as per customer requirements*
- *Upgrades or modifications needed to deadline anchors*
- *BOP trolley rail systems*
- *Sandblast and paint to customer specifications*
- *Field service and repair when applicable*

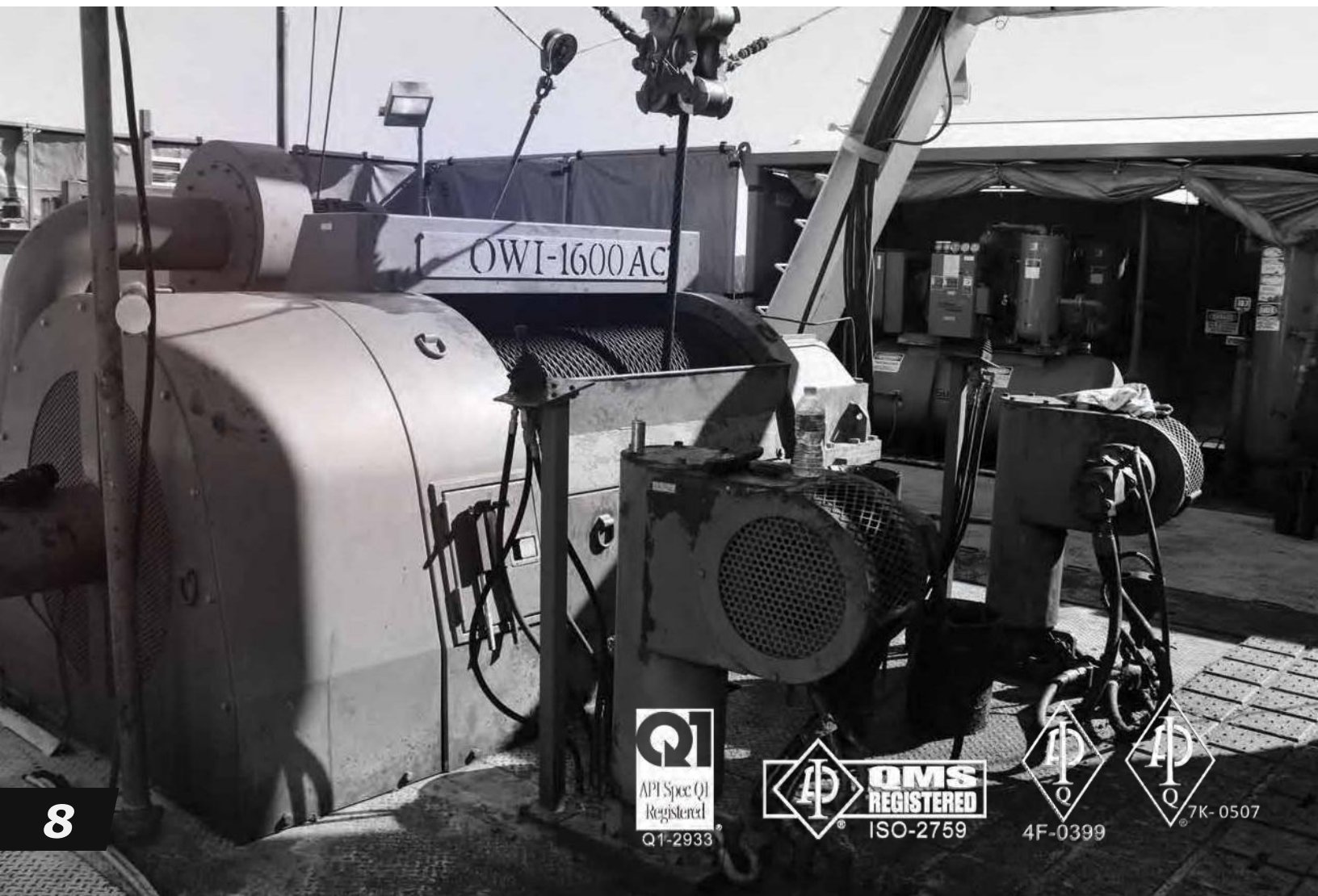
AC 1600

★★★ TES 1600 AC

The TES 1600 AC integrates some of the latest technology and safety features available today with the durability and familiarity of units that have been designed and built for years. Our goals were to design and build Drawworks that were efficient to operate and easy to maintain and service.

NOTABLE FEATURES:

- A/C Gear Drive Drawworks
- Maximum Hoisting Capacity 750,000 Lbs on 10 Lines
- Drum Diameter 31"
- Drum Length 54-1/4"
- Single Speed Gear Box with 9.907 Ratio
- Optional Two Speed Gear Box
- External Lube System with Heat Exchanger and Filter
- Heavy Duty Frame and Skid
- A/C Drilling Motor with Drawworks Rating of 2250 HP
- Spring Set, Pneumatic Release Parking Brake
- Dynamic A/C Motor Braking



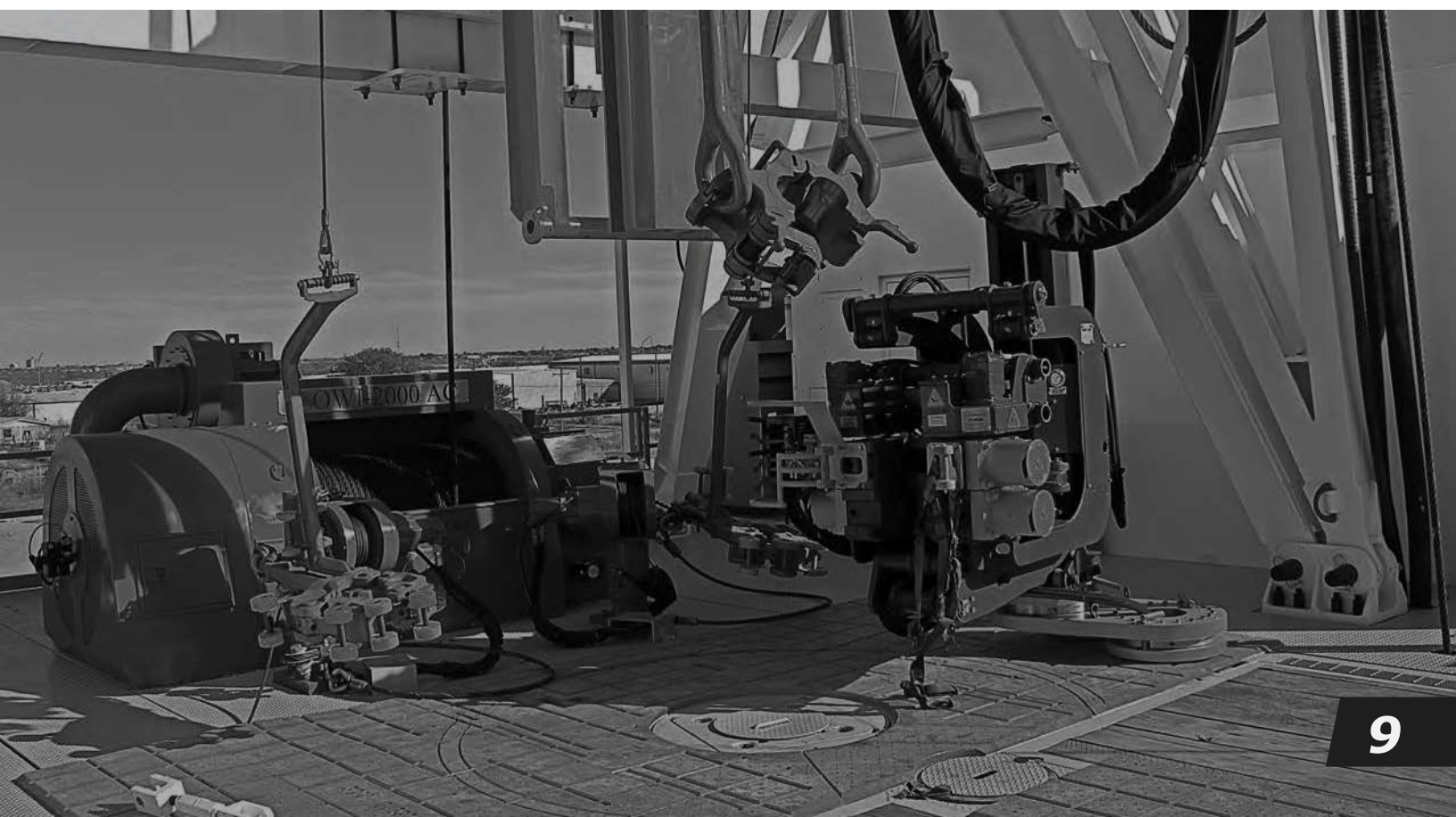
AC 2000

TES 2000 AC

The TES 2000 AC integrates some of the latest technology and safety features available today with the durability and familiarity of units that have been designed and built for years. Our goals were to design and build Drawworks that were efficient to operate and easy to maintain and service.

NOTABLE FEATURES:

- A/C Gear Drive Drawworks.
- Maximum Hoisting Capacity 860,000 Lbs on 10 Lines.
- Drum Diameter 31".
- Drum Length 54-1/4".
- Single Speed Gear Box with 9.907 Ratio.
- Optional Two Speed Gear Box.
- External Lube System with Heat Exchanger and Filter.
- Heavy Duty Frame and Skid.
- A/C Drilling Motor with Drawworks Rating of 2700 HP.
- Spring Set, Pneumatic Release Parking Brake.
- Dynamic A/C Motor Braking.





TES 1500 EH

The TES 1500 EH integrates some of the latest technology and safety features available today with the durability and familiarity of units that have been designed and built for years. Our goals were to design and build Drawworks that were efficient to operate and easy to maintain and service.

HYDRAULIC FEATURES:

- Hydraulic Catheads controlled by Hawe joystick, adjustable at console
- Hydraulic winches controlled by Hawe joystick
- Winches operated at console or by remote control with safety lockout
- Remote has E stop and keyed lockout
- E stop on panel

HYDRAULIC POWER UNIT:

- Start/stop on panel
- Integral to master skid
- 50 hp 41 gpm, 2300 psi – pressure compensated
- Piston pump



NOTABLE FEATURES:

RATING:

- 1500/2000 Input Horsepower
- 90,000 lb. Single Line Pull

DRAWWORKS:

- (2) Joliet 752 Electric Motors Mounted to Input Shaft
- Rotary Back Brake
- 46 X 10 Low Drum Clutch
- 40 X 10 High Drum Clutch
- 28 X 5 1/4 Rotary Clutch
- 50 X 10 Brake Rims
- Drum Grooving 1 3/8"
- 27 X 49 Drum Core
- EATON Water Cooled 336 WCBD Brake – Includes:
 - Stand Alone Trip and Drill System
 - On/Off on Drillers Side
 - 25%-75%-100% Selector on Drillers Side
 - Control Cabinet Uses Standard Valves
 - Optional Eddy Current Auxiliary Brake

SKID FABRICATION:

- Materials chosen to maximize vertical strength and minimize weight
- Master skid is fabricated from 18" 71 lb. beam
- Engine skid is fabricated from 10" 45 lb. beam

SERVICE FEATURES:

- Valves can be removed from outside, or complete panel is removable
- Equalizer beam and pin plates have replaceable aluminum bronze bushings
- EATON brake is removable or serviceable without disassembling cradle (outboard mounted)





TES 1000 M/MH

The TES 1000 M/MH integrates some of the latest technology and safety features available today with the durability and familiarity of units that have been designed and built for years. Our goals were to design and build Drawworks that were efficient to operate and easy to maintain and service.

NOTABLE FEATURES:

RATING:

- 1000 input horsepower
- 52,000 lb. single line pull

DRAWWORKS:

- Drum shaft diameter 8 in.
- 6 Speed transmission
- Large capacity bearings throughout
- Straight roller bearings and ball thrust bearing in low floating sprocket.
- EATON 236WCBD water cooled brake
- 32VC1000 low drum clutch
- 28VC650 high drum clutch
- 24E475 rotary clutch
- Rotary back brake optional
- Inertia brake
- Control cabinet uses standard valves
- Spacers and shoulders between bearings to eliminate sprocket damage during gear shifts
- EATON brake has stand alone trip and drill system, on/off on drill side and 25%–75%–100% selector on drill side

SKID FABRICATION:

- Materials chosen to maximize vertical strength and minimize weight
- Master skid is fabricated from 18" 71 lb. beam
- Engine skid is fabricated from 10" 45 lb. beam

COMPOUND:

- Accommodates 17" or optional 22" Engine centerlines
- One piece fabricated housing
- Internal supports and gussets
- Belt-driven compressor optional





SERVICE FEATURES:

- Valves can be removed from outside, or complete panel is removable
- Brake pedestals have replaceable aluminum bronze bushings.
- Equalizer beam and pin plates have replaceable aluminum bronze bushings
- EATON brake is removable or serviceable without disassembling cradle (outboard mounted).
- Air clutches can be replaced or repaired without removing shafts
Example: low drum, high drum, EATON brake, engine clutch, back brake (exception rotary clutch)
Removable siphon pipe / water box adapter inside drum shaft.

HYDRAULIC FEATURES:

- Hydraulic Catheads controlled by Hawe joystick, adjustable at console
- Hydraulic winches controlled by Hawe joystick
- Winches operated at console or by remote control with safety lockout
- Remote has E stop and keyed lockout
- E stop on panel

HYDRAULIC POWER UNIT:

- Start/stop on panel
- Integral to master skid
- 50 hp 41 gpm, 2300 psi – pressure compensated
- Piston pump

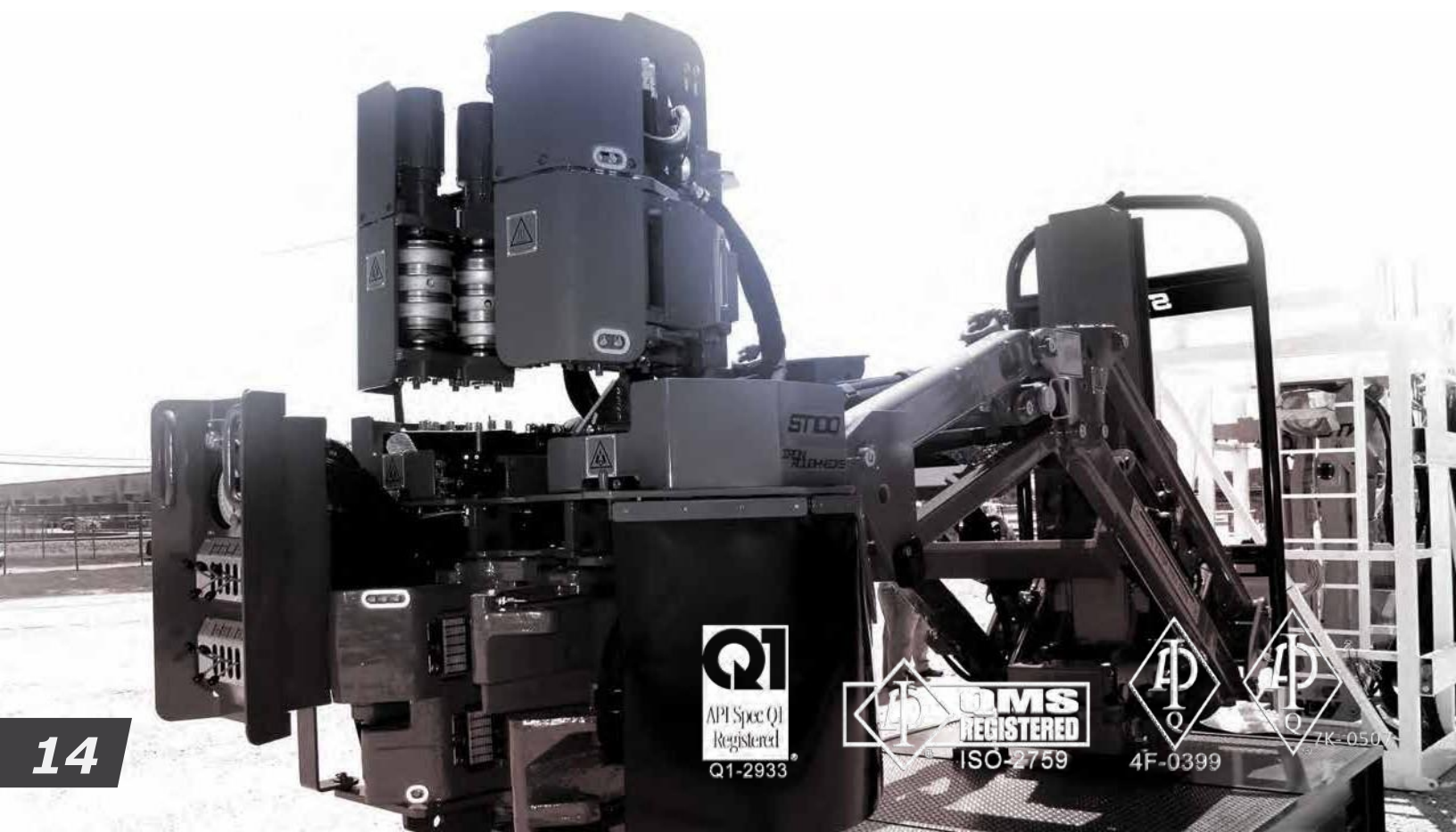


IRON ROUGHNECK PARTS AND SERVICE

The Iron Roughneck is the new industry standard. Modern rigs are being built better, safer, and more accurate, the Iron Roughneck will be safer and more accurate than those past. Iron Roughneck's are great equipment, but it can be too expensive to own a replacement.

In certain cases we offer an exchange program for clients, eliminating the repair/maintenance process completely. We come on-site, replace, and later repair here at our shop for later use. Titan Engineering Supplies, the next generation oilfield technology built and serviced right here in Odessa, TX.

In addition to service and repair, we also provide complete overhauls and rebuilds of the Iron Roughnecks. Additionally, we perform upgrades to increase efficiency in operation. This significantly increases the life span of the Iron Roughnecks, increasing the operating cycle of the equipment.







AIR COMPRESSORS





SULLIVAN PALATEK ROTARY SCREW AIR COMPRESSORS

Titan Engineering Supplies offers service and repair on all makes and models, and is your authorized distributor for Sullivan Palatek Rotary Screw Air Compressors.

STANDARD FEATURES

15, 20, 25, 30 & 40 hp Air Compressors

COMPRESSOR: Oil flooded rotary screw, continuous duty, industrial air compressor. Five-year air end warranty.

ELECTRIC MOTOR: 200-208-230-460 volt, hi-efficient Nema T-frame, C-face, design-B with class-F insulation and B temperature rise. Open drip proof type enclosure. Five-year warranty.

MOTOR STARTER: 230/460 volt (15-30 hp) 460 volt (40 hp), full voltage magnetic starter with 110 volt controls, Nema 1 enclosure, solid state circuit breaker protection for controls, and three-phase overload protection with manual reset.

COUPLING & DRIVE: Compressor is flange mounted to motor C-face for positive alignment and direct driven by zero maintenance coupling which carries a five-year warranty.

AIR INTAKE FILTER: Two stage heavy duty dry type with replaceable element.

SEPARATOR TANK: ASME coded 200 PSIG sump tank, minimum pressure/check valve, relief valve, high efficiency replaceable oil separator element, fluid level sight indicator, and vented fill cap.

COOLING SYSTEM: Air cooled with air cooled aftercooler, spin on oil filter and factory filled with Palasyn 45 synthetic lubricoolant.

CONTROLS: Full modulation, solenoid controlled for smooth lowest possible no load power. Automatic start/stop or constant speed timed dual control.

INSTRUMENTATION: Air pressure gauge, hour meter, and discharge temperature gauge.

PROTECTIVE DEVICES: Class 20 overload relay, high temperature and overpressure shutdown switches, anti-restart pressure switch preventing starting while air compressor is pressurized and anti-reversing feature.

MOUNTING: Base mounted, platform or tank mounting optional. No special foundation required.

GENERAL: Consult factory for options or accessories not listed. Specifications subject to change without notice.



GARDNER DENVER AIR COMPRESSORS



QUINCY AIR COMPRESSORS VACCUUM COMPRESSORS

Service and Repair Offered 24/7

Titan Engineering Supplies offers outright and exchange units, parts and service. Complete units, assemblies, and parts are normally in stock and ready for same day shipping.



OIL WORKS
Remount SOREVENTER
Inter American
OIL WORKS LTD



0 BAR/50 PSI, EN853, 15N3AE R10T MSHA FLAME RESISTANT 2H2 - 00



TORQUE CONVERTERS



TES TORQUE CONVERTERS

Units are available for:

- Drilling power (floor motors)
- Pump drives
- Cranes
- Draglines
- Mining equipment



NATIONAL TORQUE CONVERTERS

Units are available for:

- Drilling power (floor motors)
- Pump drives
- Cranes
- Draglines
- Mining equipment



TWIN DISC TORQUE CONVERTERS

Series:

Torque Converter	16000
10000	4SD
11500	Fluid Coupling
13800	27 HUD-00



ALLISON TORQUE CONVERTERS

Series:

TC500
TC800
TC900

Units are available for:

- Drilling power (floor motors)
- Pump drives
- Cranes
- Draglines
- Mining equipment



Service and Repair Offered 24/7

Titan Engineering Supplies offers outright and exchange units, parts and service. Complete units, assemblies, and parts are normally in stock and ready for same day shipping.



MAN RIDER





AIR HOIST/ WINCHES

Titan Engineering Supplies, offers full service on any brand or make of air hoist. Our company offers a complete line of parts and service for Ingersoll-Rand air winches and Manriders units. New and remanufactured units are available for exchange or outright sale.

Titan Engineering Supplies offers Winches and Hoist for:

- Drilling Rigs
- Floors and Subs
- Drill Line Spoolers
- Derrick/Mule Winch
- Mining Industry
- Manlifting Applications
- General Construction





MODEL TES 1500 KELLY SPINNER

Pneumatic Kelly Spinners currently on the market are single speed (wide open). They are engaged by opening a valve that can only supply full air flow to the motors on the Kelly Spinner which means they can only be operated at full speed (approximately 150-200 rpm, depending on load) when making-up or breaking-out pipe.

The TES 1500 includes a Pilot Operated Pressure Control Valve & Throttle Control Actuator Valve which gives the operator full control over the speed range (rpm) of the Kelly Spinner from 1-200 rpm. This is a huge safety factor in the operation of these units.

Pneumatic Kelly Spinners currently on the market use a Vane type air motor. This type motor requires a surge of air to start its rotation and must maintain a certain speed to continue rotating. The air use for these Kelly Spinners @ 120 psi. is approximately 600 scfm and produces approximately 25 hp and 93 ft-lbs torque. The Vane type motor also requires treated air that must go through a lubricator and water filter to clean the air supply before it enters the motors.

The TES 1500 utilizes a Turbine motor which will operate efficiently from 1-200 rpm stem speed. The Turbine motor requires no lubrication and uses only a "Y" strainer to keep large debris out of the motor. The air use for the TES 1500 @ 120 psi. is approximately 475 scfm and produces approximately 37 hp and 105 ft-lb torque.

Pneumatic Kelly Spinners currently on the market use a bearing arrangement that includes a tapered cup and cone in a top bearing carrier and a tapered cup and cone in a bottom bearing carrier. This arrangement allows the Kelly Spinner Stem to move inside the housing when the pipe is being torqued which results in wear on the stem and labyrinth plates. This arrangement also allows for excessive bearing clearance and in some cases premature failure.

The TES 1500 has a full tapered roller bearing set in the top bearing carrier and a straight radial roller bearing in the bottom bearing carrier. This gives much more stability to the Kelly Spinner Stem when the pipe is being torqued and eliminates premature wear to the stem, labyrinth plates, and bearings.

TITAN ENGINEERING SUPPLIES

...has been in the repair and manufacturing business for over 25 years. During this time we have repaired many Pneumatic Kelly Spinners and in most cases have found the same failures and safety issues. We have addressed this problem and believe our new TES1500 Pneumatic Kelly Spinner to be the best on the market. We offer variable speed control, increased torque through its entire rpm range, increased safety, and decreased maintenance.



PIPE SPINNERS

SPECIFICATIONS

LENGTH: 42"
WIDTH: 32"
HEIGHT: 42"
WEIGHT: 720 LBS

PIPE SIZE RANGE: 3-1/2" drill pipe through 7.0" drill collars

AIR REQUIRED 240 cfm @ 100 psi

MODEL TES 35C-7 PERFORMANCE

Size	3-1/2"	4"	4-1/2"	5"	5-1/2"	7"
TORQUE FT./LB.	810	930	1040	1160	1270	1620
R.P.M.	170	150	134	120	110	85

Torque @ 100psi @ 240cfm
No chain slip RPM at above torques

TES 35C7

Titan Engineering Super manufactures the TES 35C7 Pipe Spinner at our facilities in Odessa, Texas. We offer new and rebuilt units. We stock a full line of replacement parts and assemblies.

New and remanufactured units are available for exchange or outright sale. Complete service, parts, and repair available on most makes and models of pipe spinners.



TES EXPLORER SERIES WIRELINER MACHINES

The Explorer 1200 is an electric over hydraulic unit designed to handle depths up to 15,000 ft. The Explorer 1600 is an electric over hydraulic unit that utilizes a transmission with three forward gears, neutral, and a reverse gear. This unit is designed to handle depths up to 25,000 ft.

The Explorer 1200

LINE CAPACITIES

.082-in. x 20,000 ft.

.092-in. x 15,000 ft.

.108-in. x 11,500 ft.

POWER / DRIVE

15 hp / Direct Drive
thru Dog Clutch

LINE SPEED / PULL

Full Drum: 603 ft./min.

DIMENSIONS

W. 47" x D. 361/2" x H. 611/2"

The Explorer 1600

LINE CAPACITIES

.125-in. x 14,000 ft.

.108-in. x 20,000 ft.

.092-in. x 25,000 ft.

POWER / DRIVE

15 hp / 3-speed Fwd. & 1 Rev.

LINE SPEED / PULL

Full Drum: 1,350 ft./min. on Flange

DIMENSIONS

W. 491/2" x D. 351/2" x H. 64"



MUD AGITATORS

The TES Pit Boss is available in a range from 5-20 hp. These units are lightweight and compact to allow for quick and easy installation. The gear box and electric motor come preassembled and base mounted. The bases are powder coated to guarantee long life and minimize corrosion. Service is available on all brands.



CENTRIFUGAL PUMPS

Titan Engineering Supplies offers service from minor repairs to complete overhauls on centrifugal pumps. We also stock parts and complete remanufactured units at our warehouse in Odessa, Texas.



SHALE SHAKERS

Titan Engineering Supplies rebuilds all makes and models of shale shakers or can custom build new units to customer specifications.





SERVICES

QUALITY CONTROL, DESIGN, REVERSE ENGINEERING & ENGINEERING

To assure optimum quality standards, Titan Engineering Supplies utilizes computer assisted drafting and drawing file maintenance on our production items. We have quality control procedures in place for monitoring and recording all steps of our manufacturing process. Specific tooling includes: machine leveled granite inspection tables with height gauges and digital coordinate measuring equipment.

- Manual Lathes:
 - Max
 - Turning 74" O.D. 14' Length
- Manual Mills:
 - Travel capacities
 - Table Travel 116"
 - Saddle Travel 98"
 - Column Travel 66"
- Shaping
 - 48" Diam
- Gear & Sprocket Hobbing
 - 36" Diam
- Drilling
 - 6" Diam
- CNC Lathes:
 - Turning capacities up to 40" X 50"
- CNC Machining Center "Mill":
 - Travel capacities
 - 50" "X" Travel
 - 20" "Y" Travel
 - 20" "Z" Travel
- Computerized Balancing
- Waterjet Cutting
- Engine Lathes
- Vertical Boring Mill
- Horizontal Boring Mill
- Gear Hobb
- Vertical Shaper
- Drill Press
- Horizontal Saw



CNC & MANUAL MACHINE SHOP

Our machine shop has "Job Shop" and "Production Shop" capabilities. Whether you need 1 part repaired or 1,000 parts manufactured, we can handle the job.

- Services Offered New & Repair
 - Turning
 - Milling
 - Drilling
 - Tapping
 - Sprockets
 - Gears
 - Internal & External Splining
 - Keyways
 - Threading
 - Heat Treating
 - Welding






OIL WORKS, INC.
Custom Rig Solutions



OIL WORKS, INC.

Custom Rig Solutions